Data Sheet

Momentus® Thin

The World's First 7mm, 2.5-Inch Form Factor Drive

Key Advantages

- 7mm z-height form factor enables thin chassis design for all segments of laptop computing.

- Seagate SmartAlign™ technology provides a transition to 4K sectors without the need for software utilities.

- Self-Encrypting Drives mitigate data breaches, comply with data protection regulations and preserve brand recognition.

- Self-Encrypting Drives with FIPS 140-2 certification[1] are approved for the U.S. and Canadian governments.

Best-Fit Applications

- Entry-level to high-performance laptops—Enjoy a stylish, thin and lightweight design without exceeding your budget.

- Netbooks—Get a thinner netbook without compromising on storage or affordability.

- Ultraportables—Take advantage of a stylish, thin and lightweight design without compromising on features.

- Slim consumer electronics devices—Add some style to your digital life.

1 See FIPS 140-2 Level 2 Certificate at
  http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm

Momentus® Thin

The World's First 7mm, 2.5-Inch Form Factor Drive

Seagate clearly demonstrates how to help differentiate, increase profitability and meet market demand for slim computing.

- The 2.5-inch form factor enables compromise-free, cost-effective and reliable storage for slim, entry-level laptops, high-end netbooks, ultraportables and CE devices.

- Seagate® Momentus® Thin drives come in 320, 250 and 160GB capacities, to provide the right capacity points for full-functioning computing devices. For performance enthusiasts, check out the 7200-RPM Momentus Thin drive.

- Users now have 16MB of cache on both the mainstream 5400-RPM and the high-performance 7200-RPM options.

- Seagate Self-Encrypting Drives (SED) deliver government-grade encryption without performance degredation – protecting your data where it lives.

- The Momentus Thin SED is the first Trusted Computing Group Opal specification drive to achieve FIPS 140-2, Level-2 certification by the U.S. and Canadian governments.

Specifications	Momentus 5400 Drives			Momentus 7200 Drives		
	320GB[1]	250GB[1]	160GB[1]	320GB[1]	250GB[1]	160GB[1]
Feature Options						
Standard Models	ST320LT020	ST250LT003	ST160LT003	ST320LT007	ST250LT007	ST160LT007
Self-Encrypting Drive Models				ST320LT014	ST250LT014	
Self-Encrypting Drive FIPS 140-2 Validated				ST320LT009	ST250LT009	
Interface	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ	SATA 3Gb/s NCQ
Cache (MB)	16	16	16	16	16	16
Configuration						
Bytes per Sector	4096[2]	4096[2]	4096[2]	4096[2]	4096[2]	4096[2]
Reliability/Data Integrity						
Head-Rest Method	Quiet Step™ Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load	Quiet Step Ramp Load
Load/Unload Cycles	>600,000	>600,000	>600,000	>600,000	>600,000	>600,000
Nonrecoverable Read Errors per Bits Read	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Annualized Failure Rate (AFR)	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%
Power Management						
Power (W) Seek, Typical / Idle, Typical	1.4 / 0.48	1.4 / 0.48	1.4 / 0.48	1.6 / 0.66	1.6 / 0.66	1.6 / 0.66
Environmental						
Temperature (°C) Operating / Nonoperating	0 to 60 / −40 to 70	0 to 60 / −40 to 70	0 to 60 / −40 to 70	0 to 60 / −40 to 70	0 to 60 / −40 to 70	0 to 60 / −40 to 70
Shock (Gs) Operating: 2ms / Nonoperating: 1ms	350 / 1000	350 / 1000	350 / 1000	350 / 1000	350 / 1000	350 / 1000
Acoustics (bels—sound power) Idle, Typical / Seek, Typical	2.0 / 2.2	2.0 / 2.2	2.0 / 2.2	2.3 / 2.5	2.3 / 2.5	2.3 / 2.5
Physical						
Height (in/mm)	0.276/7.0	0.276/7.0	0.276/7.0	0.276/7.0	0.276/7.0	0.276/7.0
Width (in/mm)	2.76/70.1	2.76/70.1	2.76/70.1	2.76/70.1	2.76/70.1	2.76/70.1
Depth (in/mm)	3.959/100.55	3.959/100.55	3.959/100.55	3.959/100.55	3.959/100.55	3.959/100.55
Weight (lb/g)	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0	0.203/92.0
Carton Unit Quantity	50	50	50	50	50	50
Cartons per Pallet	60	60	60	60	60	60
Cartons per Layer	10	10	10	10	10	10

1 One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to drive capacity.
2 Advanced Format 4K sector drive with SmartAlign™ technology resolves misalignment conditions.

www.seagate.com

FIPS 140-2 Inside · Compatible with Windows 7 · Think Green™ · Seagate Secure® · ADVANCED AF FORMAT